



State of Utah

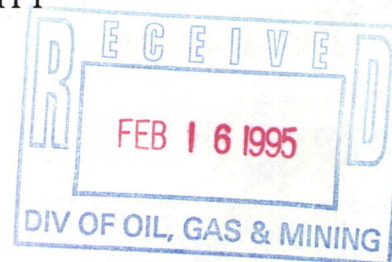
DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF WATER QUALITY

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February 15, 1995

Mr. Doug Marriott
70 West Canyon Crest Road
Suite D
Alpine Utah 84004

Re: Gold Silver Vat Leach - Clifton Utah

Dear Mr. Marriott:

We have reviewed your fax submittal describing construction and operation of a vat leach facility.

Three vats will be constructed of concrete fitted with water stops and lined with epoxy coating. Dimensions of the vats are 60 feet by 100 feet and 9 feet high. Ore will be placed 7 feet high in each vat and then flooded with a cyanide solution. The tailings will then be neutralized with chemicals and tested for cyanide prior to removal.

Based on the information we received, it appears that if constructed and operated properly the proposed facility would comply with *Utah Water Quality Rules, (R317, Utah Administrative Code)* for the stated use.

At such time you wish to proceed with your project we will need to receive the following additional information in detail to continue our review:

1. Plan and specification addressing the following:
 - a. Site and vicinity or location plan.
 - b. Vats, liners, processing facility, solution tanks, piping, etc.
 - c. Diversion ditches needed to prevent flooding of the facility resulting from a 100-year 24-hour storm event.
2. Description of methods of handling of sulfide bearing ore if such ore is to be disturbed.
3. A description of all chemicals that will be used in the process and information regarding concentration, quantity, storage, transport, generation and disposal of these chemicals.



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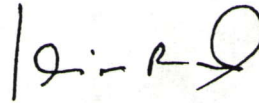
4. The amount of ore that will be processed per day and per year.
5. The total amount of chemicals that will be used per day and per year.
6. Location and name of water courses that would be impacted or threatened by the operation.

Enclosed is a copy of draft guidance for heap leach projects. Much of the material in this document will be applicable to your proposed facility.

Following our review of the proposed facility, we will advise you on whether a ground water, discharge, and/or construction permit is required for the process facility. The permits must be issued before you can begin construction of a process facility.

If we can be of further assistance, please contact me or Mr. Lyle Stott of my staff.

Sincerely,



Kiran L. Bhayani, P.E., D.EE., Manager
Design Evaluation Section

KLB:LWS/rvg

cc: Wayne Hedberg - Division of Oil, Gas and Mining

L:MARRIOTT.141
FILE:MINING